

## EAST Search History

| Ref # | Hits | Search Query                                                                                                                                                                                                                                                                                                                                                                                                              | DBs                                                            | Default Operator | Plurals | Time Stamp       |
|-------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------|---------|------------------|
| S1    | 13   | (SU-WEN-HUNG OR HSU-CHUN-MING OR LIN-HUNG-WEN OR HSIAO-KAI-MING).IN.                                                                                                                                                                                                                                                                                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2007/06/08 11:49 |
| S4    | 21   | S2 AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (charge NEAR4 voltage)) AND (invert OR inverter)                                                                                                                                                                                                                                                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2007/06/08 12:47 |
| S7    | 1    | ("20040099790").PN.                                                                                                                                                                                                                                                                                                                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR               | OFF     | 2007/06/08 14:50 |
| S6    | 41   | S5 NOT S4                                                                                                                                                                                                                                                                                                                                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2007/06/08 14:50 |
| S5    | 49   | (@ad<"20040420" OR @rlad<"20040420") AND (cmos OR mos) AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (invert OR inverter)) AND (charge NEAR4 voltage) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2007/06/08 14:58 |

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|     |     |                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |    |     |                  |
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| S8  | 488 | (@ad<"20040420" OR @rlad<"20040420") AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND (charge WITH voltage) AND (cds! OR (correlat\$4 ADJ double)) AND (ic OR "integrated circuit") | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:01 |
| S10 | 117 | S9 AND ((cds! OR (correlat\$4 ADJ double)) SAME capacitor)                                                                                                                                                                                                                                                                                                                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:02 |
| S9  | 304 | S8 AND cmos                                                                                                                                                                                                                                                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:02 |
| S12 | 14  | S9 AND ((cds! OR (correlat\$4 ADJ double)) SAME capacitor) AND ((cds! OR (correlat\$4 ADJ double)) SAME (opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)))                                                                                                                                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:04 |
| S3  | 1   | S2 AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (charge NEAR4 voltage) SAME (invert OR inverter))                                                                                                                                                                                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:10 |
| S14 | 1   | ("6445022").PN.                                                                                                                                                                                                                                                                                                                                                                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2007/06/08 15:23 |
| S15 | 16  | S2 AND (cds! OR (correlat\$4 ADJ double))                                                                                                                                                                                                                                                                                                                                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:31 |

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|     |     |                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                |    |     |                  |
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| S11 | 0   | S9 AND ((cds! OR (correlat\$4 ADJ double)) SAME capacitor) AND ((cds! OR (correlat\$4 ADJ double)) SAME (opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp))) AND ((cds! OR (correlat\$4 ADJ double)) SAME (cmos NEAR5 switch\$3))                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 15:31 |
| S18 | 175 | S17 AND cmos                                                                                                                                                                                                                                                                                                                                                                                                                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 16:00 |
| S17 | 216 | (@ad<"20040420" OR @rlad<"20040420") AND (cmos OR mos) AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp))) AND (cds! OR (correlat\$4 ADJ double)) NOT S15 NOT S16              | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 16:00 |
| S19 | 1   | ("20020190193").PN.                                                                                                                                                                                                                                                                                                                                                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2007/06/08 17:02 |
| S16 | 23  | (@ad<"20040420" OR @rlad<"20040420") AND (cmos OR mos) AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (current NEAR4 voltage)) AND (cds! OR (correlat\$4 ADJ double)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/08 17:30 |

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| S20 | 56  | (@ad<"20040420" OR @rlad<"20040420") AND (cmos OR mos) AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (gain NEAR4 unit\$1)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/08 17:49 |
| S22 | 63  | S21 NOT S20                                                                                                                                                                                                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/08 17:51 |
| S21 | 119 | (@ad<"20040420" OR @rlad<"20040420") AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (gain NEAR4 unit\$1))                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/08 17:52 |
| S24 | 132 | S23 NOT S20                                                                                                                                                                                                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/08 17:53 |
| S23 | 148 | (@ad<"20040420" OR @rlad<"20040420") AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME gain SAME (sampl\$3 OR "S&H"))          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/08 17:53 |

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|-----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----|-----|------------------|
| S2  | 60 | (@ad<"20040420" OR @rlad<"20040420") AND (cmos OR mos) AND ("image sensor" OR "image pickup" OR "image pick up" OR "imaging device" OR "image sensing" OR "imaging array" OR "pixel sensor" OR "imaging apparatus" OR "image capturing" OR "video sensor" OR "imaging unit" OR (348/207.99-376).CCLS.) AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (charge NEAR4 voltage)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 12:16 |
| S27 | 1  | ("5289058").PN.                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2007/06/11 13:47 |
| S26 | 1  | ("5894245").PN.                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2007/06/11 13:47 |
| S25 | 70 | (@ad<"20040420" OR @rlad<"20040420") AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) SAME (pmos OR nmos) SAME advantag\$7)                                                                                                                                                                                                                                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 14:12 |
| S30 | 0  | (@ad<"20040420" OR @rlad<"20040420") AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) WITH (pmos OR nmos) WITH "single stage")                                                                                                                                                                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 14:28 |
| S28 | 64 | (@ad<"20040420" OR @rlad<"20040420") AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) WITH cmos WITH advantag\$7)                                                                                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 14:37 |
| S32 | 43 | S31 AND imag\$3                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 14:38 |

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|     |      |                                                                                                                                  |                                                                |    |    |                  |
|-----|------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----|----|------------------|
| S31 | 159  | (@ad<"20040420" OR @rlad<"20040420") AND (switch WITH cmos WITH advantag\$7)                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 14:38 |
| S29 | 6    | (@ad<"20040420" OR @rlad<"20040420") AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) WITH cmos WITH "single stage") | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:02 |
| S33 | 125  | (@ad<"20040420" OR @rlad<"20040420") AND ((opamp OR (operation\$2 ADJ amplifier) OR (op ADJ amp)) NEAR5 "single stage")          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:25 |
| S34 | 1943 | (@ad<"20040420" OR @rlad<"20040420") AND (photodiode WITH "n type" WITH "p type")                                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:32 |
| S35 | 8    | (@ad<"20040420" OR @rlad<"20040420") AND (photodiode WITH "n sub" WITH "p sub")                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:34 |
| S37 | 0    | (@ad<"20040420" OR @rlad<"20040420") AND ("n sub" WITH "p sub" WITH cmos)                                                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:35 |
| S38 | 3    | (@ad<"20040420" OR @rlad<"20040420") AND ("n sub" SAME "p sub" SAME cmos)                                                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:36 |
| S36 | 62   | (@ad<"20040420" OR @rlad<"20040420") AND (photodiode WITH "n type" WITH "p type" WITH cmos)                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2007/06/11 15:36 |

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|     |     |                                                                                                                                                                                        |                                                                |    |     |                  |
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| S39 | 342 | (@ad<"20040420" OR @rlad<"20040420") AND (photodiode WITH n WITH p WITH cmos)                                                                                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 16:52 |
| S40 | 11  | (@ad<"20040420" OR @rlad<"20040420") AND (348/207. 99-376).CCLS. AND cmos AND (cds! OR "correlated double") AND (reset\$4 NEAR6 (ic OR "integrated circuit"))                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 16:59 |
| S41 | 11  | (@ad<"20040420" OR @rlad<"20040420") AND (348/207. 99-376).CCLS. AND cmos AND (cds! OR "correlated double") AND (reset\$4 NEAR6 (ic OR "integrated circuit")) AND "integrated circuit" | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 17:14 |
| S43 | 115 | "bright voltage"                                                                                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 17:29 |
| S42 | 1   | ("20020033439").PN.                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2007/06/11 17:29 |
| S44 | 5   | "bright voltage" AND (348/207. 99-376).CCLS.                                                                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2007/06/11 17:30 |
| L1  | 1   | ("6111606").PN.                                                                                                                                                                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2007/06/12 10:22 |